ABSTRACT OF THE DISCLOSURE

Without performing a channel reservation, an arbitrary radio communication with other surrounding radio communication devices may be carried out by setting up a receiving slot according to the amount of receiving data. Each radio communication device may only manage the number of its own receiving slots so as to secure the channel required for communication by its own determination, without needing a process which is accurately synchronous with other radio communication devices. The radio communication device on the data transmission side monitors, by receiving the beacon, the increase in the number of the receiving slots of the radio communication device on the reception side, so as to transmit the data immediately when the number of the receiving slots increases. The reception acknowledgement (ACK) information from the reception side radio communication device is written in the beacon and returned.